

ABSTRACT OF Korean Patent Application No. 10-2001-7011708

The present invention relates to information recording medium and method for manufacturing the same. An information recording medium having a such recording material layer on a substrate where reversible phase transition between electrically or optically detectable can be caused by electric energy or electromagnetic energy. The recording material forming the recording layer is either a material having a crystal structure including lattice defects in one phase of the reversible phase transition of a material having a complex phase composed of a crystal portion including a lattice defect in one phase of the reversible phase transition and an amorphous portion. Both portions contain a common element. A part of the lattice defects are filled with an element other than the element constituting the crystal structure. The recording medium having a recording film exhibits little variation of the recording and reproduction characteristics even after repetition of recording and reproduction excellent weatherability, strong resistance against composition variation, and easily controllable characteristics.

평의 유효 스푼 길이 1/6로 표시한 경우, 현재의 DDP-RAM에 이용되는 광선계는 파장이 680nm, 대역폭 3nm, MW가 0.600으로, 미정확도로는 0.95% 정도 된다. 이 레이저 스푼이 DDP-RAM에 사용되는 스캐도 680nm로 한정되고 있는 디스크를 기점으로 저주파 180nm 미만으로, O의 디스크이며, 현재의 DDP-RAM 시스템에 적용 가능하다. 또한, 전속도 900/s 이상의 시스템이라도 대응 가능하다. O의 디스크이며, 더욱 고속의 전속도 1200/s 이상의 조건에도 대응 가능하다.

(참시예 3)

상기 실시예 1의 변형예 실시예 2의 조성을 적용하고, 001의 광 디스크 1~100에 전제한다. 이 경우의 디스크 3개에 전속도 900/s로 한정시키고, 파장 680nm의 레이저 다이오드로부터 나온 광선을 NA 0.6의 대역폭 스푼을 포함하는 광학계를 이용하여 디스크상에 전제한다. 이 때, 도파~도파에 도사하는 비파괴, 31.5nm 호로부터 11nm까지의 산포광에 대응한 레이저 광선 파장을 적용한 8-16 변조방식(비트 길이 : 0.3nm)으로 오버레이된 기록을 행한다. 이 때, 파워, 비메이스트 파장은 이하와 같이 정한다. 우선, 전속의 포화치에 대해, 300의 전속을 주는 파장을 1.3nm 근방 값을 파크 파워로 정다. 다음에, 파크 파워를 고정 비메이스트 파워를 기점으로 하여, 31.5nm를 정하고, 이 위에 동일한 파장은 11.1nm를 정하고, 파크 파워의 31.5nm의 전속비율 속성하여 스캐도를 한다. 스캐도를 실시한 후, 파크 파워를 정하고, 파크 파워를 정하고, 파크 파워를 정하고, 스캐도를 2000를 넘는 하한 파워와 상한 파워의 중심치를 비메이스트 파워로 정다.

표에 각 디스크의 렌즈 기록시의 기록 파워(파크 파워/비메이스트 파워), C/A, 스캐도의 최대치, 무작위 신호를 반역 오버레이된 기록을 행한 시, 제1치가 130를 넘지 않는 스캐도를 나타낸다.

<표> 001~003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014, 015, 016, 017, 018, 019, 020, 021, 022, 023, 024, 025, 026, 027, 028, 029, 030, 031, 032, 033, 034, 035, 036, 037, 038, 039, 040, 041, 042, 043, 044, 045, 046, 047, 048, 049, 050, 051, 052, 053, 054, 055, 056, 057, 058, 059, 060, 061, 062, 063, 064, 065, 066, 067, 068, 069, 070, 071, 072, 073, 074, 075, 076, 077, 078, 079, 080, 081, 082, 083, 084, 085, 086, 087, 088, 089, 090, 091, 092, 093, 094, 095, 096, 097, 098, 099, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 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참고항 26

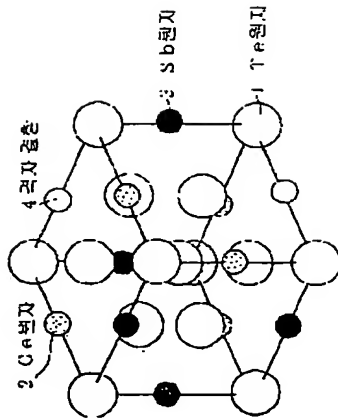
제24항에 있어서, 상기 기록층은 스터티늄을 이용하여 형성되고, 상기 스터티늄의 스터티 타겟으로서, 삼기 결정구조를 구성하는 원소와 상기 첨가원소를 포함하는 단결정을 이용하는 것을 특징으로 하는 정보기록 매체의 제조방법.

참고항 27

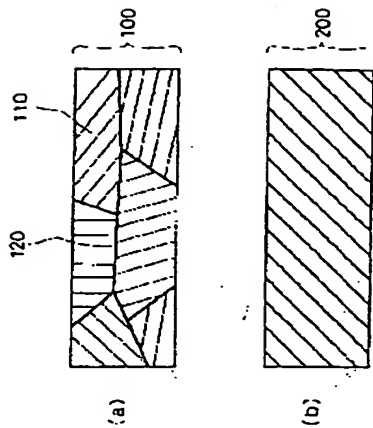
제24항에 있어서, 스터티 가스중에 N₂ 가스 및 O₂ 가스에서 선택되는 적어도 하나의 가스를 포함시키는 것을 특징으로 하는 정보기록매체의 제조방법.

도면

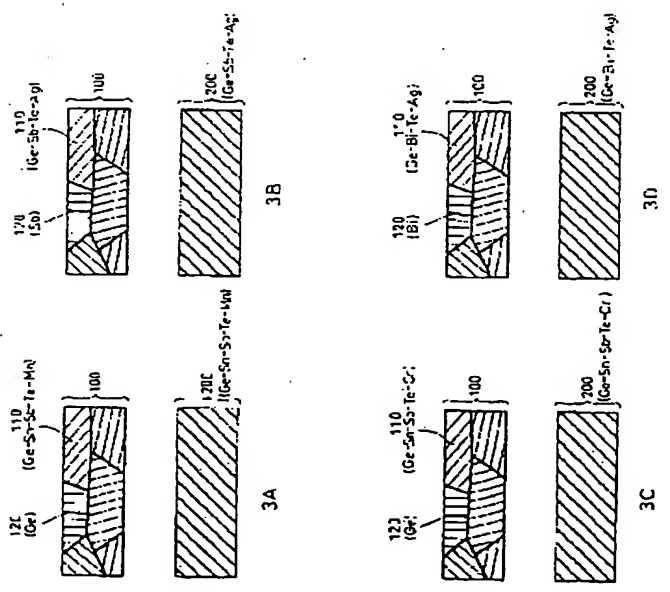
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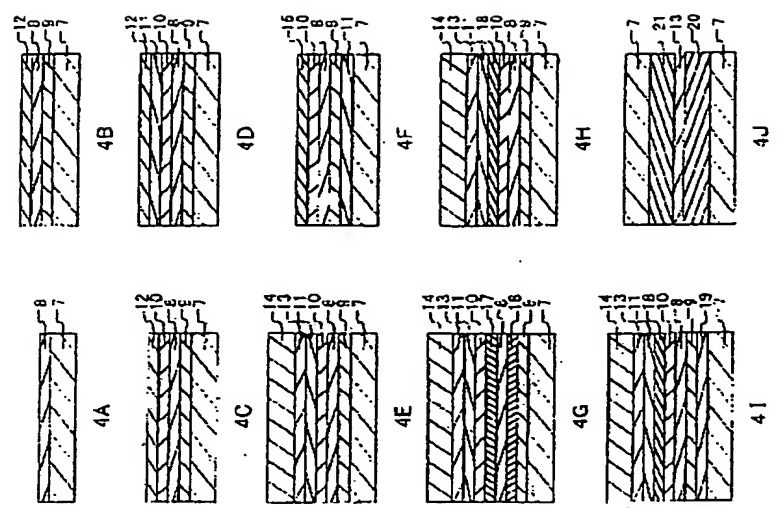
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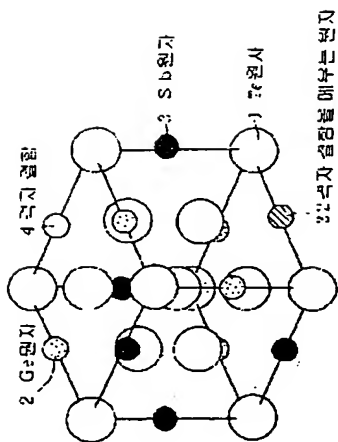
5C 2B/3



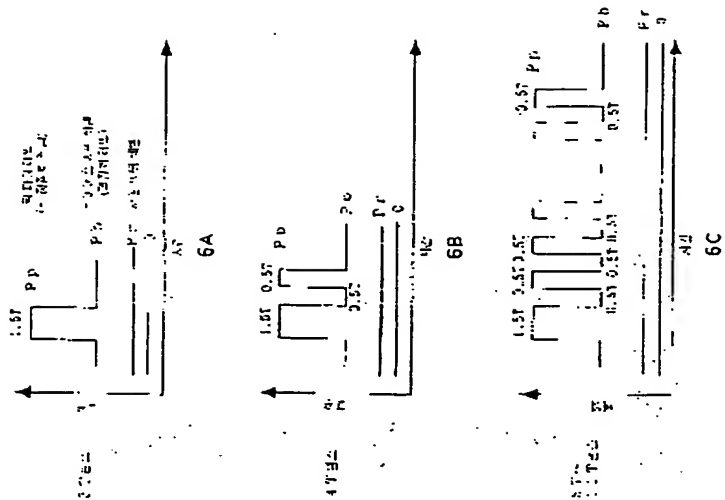
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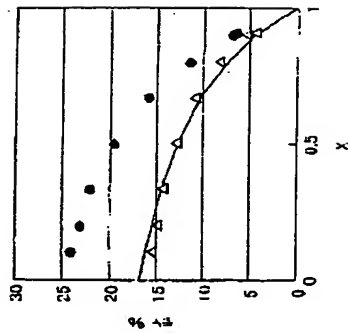
도면5



도면6



5287



5288

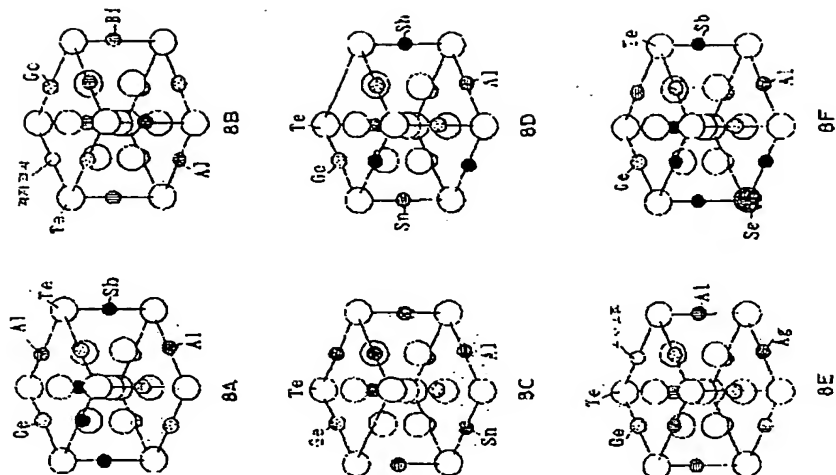


FIG. 10

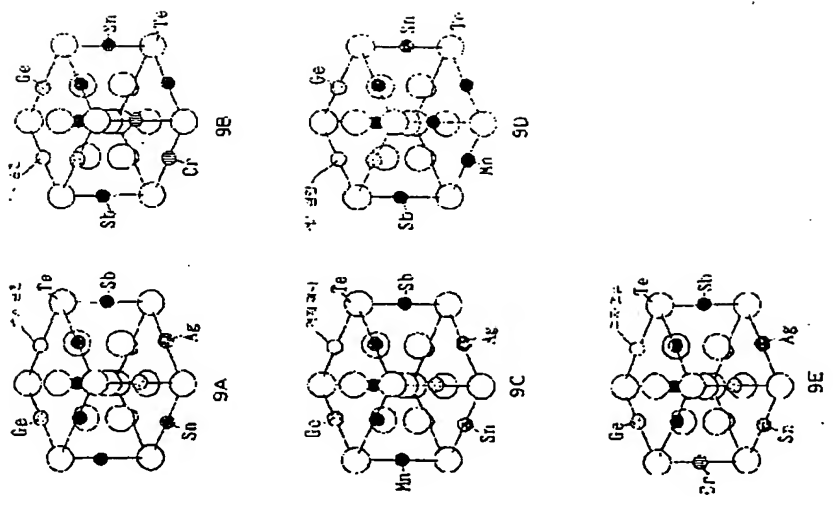
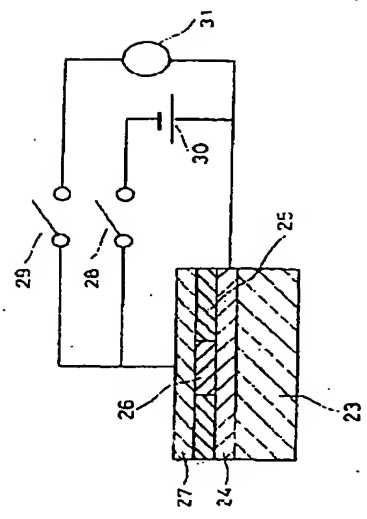


FIG. 11



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